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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/603,839	06/26/2000	Keith Barr	05829.0010	3447

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
1300 I STREET, NW  
WASHINGTON, DC 20005

EXAMINER

GANTT, ALAN T

ART UNIT	PAPER NUMBER
2684	9

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/603,839

Applicant(s)

BARR ET AL.

Examiner

Alan T. Gantt

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,12-16,18-23,27 and 28 is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 3/20/04 have been fully considered but they are not persuasive. Applicant has amended all non-cancelled dependent claims. Applicant argues for a single phase locked loop and a clock generator that generates a plurality of second clock signals that have frequencies are submultiples of the first clock signal with each of the second clock signal emanating from the clock generator. Thus, a new reference (Lee et al.) is submitted to meet the applicant's amended claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al.

Regarding claim 1, Lee discloses a phase lock loop apparatus and method for using that includes a multiple feedback CMOS voltage control oscillator and multi-phase sampling fraction-N prescaler. Lee meets the following claim limitations:

- a clock generator for receiving the first clock and generating a plurality of second clock signals that have frequencies that are submultiples of the first clock signal.  
(paragraphs 0018 and 0019 [generating a divided clock second clock signal])

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Lee does not explicitly state that the word clock signal fed to the PLL generates a first clock having a frequency that is a multiple of the WC signal.

However, Lee suggests the following limitation through the use of language such as a device for outputting a divided clock signal having a higher frequency than the plurality of clock signals” and “device for outputting a device having a different frequency than the oscillator as this shows the versatility of Lee.

- a phase locked loop (PLL) for receiving said word clock (WC) signal and generating a first clock having a frequency that is a multiple of said WC signal; (paragraphs 0020 and 0021)

Therefore, at the time of applicant’s invention, it would have been obvious to modify Lee to include providing a multiple of the word clock signal since the circuit provides for a variety of clock options.

Regarding claim 2, Lee meets the following limitation:

- the clock generator outputs one of the second clock signals having a same frequency as the WC signal to the PLL, (paragraph 0021)

Lee does not meet the following limitation regarding that the PLL adjusts the first clock signal based on the received one of the second clock signals.

However, the examiner takes Official Notice that it is well known in a PLL to use a second clock signal to adjust the first clock signal and it would have been obvious to modify Lee to include such a characteristic as this would provide stability of the first clock signal.

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Regarding claim 3, Lee is silent on utilizing a control circuit responsive to the second clock signal for generating control signals. However, the examiner takes Official Notice that it is well known to have a control circuit responsive to a second clock signal for generating output signals and that it would have been obvious to modify Lee to include this capability since this is a tried and true method for generating output signals.

Regarding claims 4 and 7, Lee is silent regarding utilizing a storage element that is responsive to the control signals for outputting all data words in the storage elements. However, the examiner takes Official Notice that this function is well known and that it would have been obvious to modify Lee to include this capacity since it is a tried and true means of moving data.

Regarding claims 5 and 6, Lee makes use of a multiplexer to move data (Figure 5 and paragraphs 0047-49).

Regarding claim 8, Lee meets the following limitation:

- wherein said PLL and clock generator are incorporated on a single chip.  
(paragraphs 0009 and 0053)

Regarding claim 9, Lee meets the following limitation:

- wherein said PLL includes a charge pump. (paragraphs 0038 and 0039)

***Allowable Subject Matter***

Claims 10, 12-16, 18-23, 27, and 28 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 10, a data system having all the characteristics required by the claim was neither found, suggested, nor made evident by the prior art.

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Regarding claim 27, a phase locked loop incorporated on a single chip having all the characteristics required by the claim was neither found, suggested, nor made evident by the prior art.

*Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication from the examiner should be addressed to Alan Gantt at telephone number (703) 305-0077. The examiner can normally be reached between 9:30 AM and 6 PM within the Eastern Time Zone. The group FAX number is (703) 308-6306.

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Any inquiry of a general nature or relating to this application should be directed to the group receptionist at telephone number (703) 305-4700.

*Alan T. Gantt*

Alan T. Gantt

May 29, 2004



**NICK CORSARO  
PATENT EXAMINER**